

AMENDMENTS TO THE CLAIMS

Applicant submits below a complete listing of the current claims, including marked-up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing. This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of the Claims

1. (Currently amended) A method comprising:

~~for transmitting first digital messages to an analysis tool from a monitoring circuit integrated with a microprocessor, the first digital messages being which are representative of first specific events depending which depend on the execution of an instruction sequence by the microprocessor to an analysis tool through output terminals of a monitoring circuit integrated with a microprocessor;~~

~~transmitting to the monitoring circuit, through dedicated accesses: a request signal for the sending of a message associated with a specific event from detecting, with a request circuit, at least one second specific events event which are independent from the execution of the instruction sequence by the microprocessor;~~

~~transmitting to the monitoring circuit, when the at least one second specific event is detected, a signal of characteristic data signal associated with said specific event from said at least one second specific events event;~~

~~having storing the characteristic data signal in the monitoring circuit, read said request message and, if resource management conditions are fulfilled, transmitting through a dedicated access an acknowledgement message signal to the request circuit, and storing said characteristic data signal;~~

~~transmitting a at least one second digital message representative of the stored characteristic data signal to the analysis tool; and~~

~~processing the first digital messages and the at least one second digital message via the analysis tool to analyze operation of the microprocessor and the at least one second specific event.~~

2. (Currently amended) The method of claim 1, in which the resource management conditions are fulfilled when the monitoring circuit is not transmitting the first digital messages representative of the first specific events.

3. (Currently amended) The method of claim 1, in which the at least one second digital message representative of the stored characteristic data signal comprises an identifier and the characteristic data signal.

4. (Previously presented) The method of claim 1, in which the characteristic data signal corresponds to the values on input terminals of the microprocessor.

5. (Currently amended) ~~A device for transmitting digital messages between a monitoring circuit integrated with a microprocessor and an analysis tool.~~ An apparatus, comprising:

a microprocessor;

a memory integrated with the microprocessor;

an analysis tool;

a monitoring circuit; ~~an analysis tool;~~ means for transmitting first digital messages to the analysis tool, the first digital messages being representative of first specific events which depend on the execution of an instruction sequence by the microprocessor; and

means a request circuit for detecting a specific event from at least one second specific events which are event independent from the execution of the instruction sequence by the microprocessor; ~~and, the request circuit means for transmitting a request for transmitting~~ to the monitoring circuit, when a the at least one second specific event is detected, a request signal and a characteristic data signal associated with said at least one second specific event ~~from said second specific events;~~

wherein the monitoring circuit ~~comprises means for storing~~ stores the characteristic data signal ~~provided by the request transmission means,~~ means for transmitting transmits to the request ~~transmission means circuit~~ an acknowledgement signal when the characteristic data

signal is stored, and ~~means for transmitting a~~ transmits to the analysis tool at least one second digital message representative of said stored characteristic data signal, and to the analysis tool.

wherein the analysis tool processes the first digital messages and the at least one second digital message to analyze operation of the microprocessor and the at least one second specific event.

6. (Currently amended) The ~~device~~ apparatus of claim 5, in which the ~~detection means request circuit, the request transmission means,~~ the monitoring circuit, and the microprocessor are integrated in a same chip.

7. (Currently amended) The ~~device~~ apparatus of claim 5, in which the ~~detection means request circuit~~ is connected to input terminals of the microprocessor.